weight of 79.904 g/mol, the absolute amount of bromine that can be calculated for the upper limit of 80 mm^3 discharge space is between 1.09 μg and 4.28 μg. The absolute amount of bromine will be correspondingly lower when the discharge space is smaller than the upper limit. As a consequence, the amount of bromine is always in the μg range and not in the g range as erroneously stated in the mentioned parts of the description.

The same is true for the prior art. The amounts of bromine which can be calculated from the examples of U.S. 5,109,181, which is mentioned on page 1 of the present description, result in sub-μg amounts but certainly not in gram amounts. It is also completely clear to the person of ordinary skill in the art that the small discharge lamps which are addressed in the present application would never be able to work with halogen amounts in the gram range. Further, the statement in paragraph [0006] that the "smallest available pellets are 20 g in weight" clearly makes no sense at all as 20 g is a very considerable weight, whereas the statement is clear for 20 μg.

It is therefore trusted that the amendments, which in the only reasonable way solve the obvious discrepancies between the μmol ranges and the clearly incorrect μg values and which amendments in no way change the scope of the invention, will be found allowable.

Respectfully submitted,

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MARKED UP VERSION OF AMENDMENTS

[0006] Another known means of incorporating the halogen is to introduce a metal halide in the form of a pellet. This method is conventionally used in the manufacture of metal halide lamps. In very high-pressure mercury lamps that have been used as light sources for liquid crystal projectors in recent years, the volume of the discharge space formed by the discharge vessel has been small, no more than 80 mm^3, in order to raise the working voltage when lighted; the amount of halogen necessary to prevent blacking of the tube wall of the discharge vessel in this case is 3 μg or less in weight. Because even the smallest of the generally available pellets are 20 μg in weight, an excessive amount of halogen is incorporated into the discharge vessel. As a result, the halogen causes wastage of the discharge electrodes, and the undesirable phenomenon of light-spot shift.

[0030] In the manufacturing process described above, the metal halide is absorbed by the porous body of the halogen-introduction carrier 25 in a roughly unimolecular layer. Therefore, by controlling the size of the halogen-introduction carrier 25, it is possible to regulate accurately the target amount of halogen introduced, even when the amount is very slight. Specifically, it is possible to absorb 1 μg of bromine in a halogen-introduction carrier that comprises porous body of tungsten 1.1 mm in outside diameter, 2 mm in length and 19 mg in weight. Moreover, because the metal halide absorbed in the halogen-introduction carrier 25 is released by heating, an accurately regulated amount of halogen can be introduced into the space 27, which will become the discharge space, by introducing an halogen-introduction carrier 25 of controlled size into the auxiliary tube 23, heating it to release the halogen, and letting the halogen expand into the space 27.

[0035] During the manufacture of the halogen-introduction carrier, powdered tungsten with an average particle diameter of 5 μm was prepared by mixing with 5 wt-% stearic acid as a binder and heating, then loaded into a mold with columnar mold spaces and compacted with a press to form molded pieces measuring 1.1 mm in outside diameter, 2 mm total length, and 20 mg in weight. The molded pieces thus obtained were heated under a hydrogen atmosphere to produce pre-sinters, and the pre-sinters were sintered in a vacuum to produce halogen-introduction carriers which were columnar porous bodies. A metal halide